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Original article

Assessment the relation between lifestyle with mental health and educational achievement in nursing students

Mohammad Heidari¹, Marzieh Borjian Borujeni², Mansureh Ghodusi Borujeni³, Parvin Rezaei⁴

Abstract:

Objective: This study was aimed to assess the correlation between lifestyle with mental health and educational achievement of nursing students. **Materials and Methods:** This is a descriptive-correlational study that all students in nursing college in 2015 were selected by the census sampling method. Data gathering tool were standard Walker's lifestyle questionnaire and General Health Questionnaire-28 and data were analyzed by SPSS/21. **Results:** The results reported that most subjects (61.01%) displayed moderate levels of lifestyle. In considering domains mental health 37.28%, were depression and 34.74% anxiety. Based on the Pearson correlation coefficient test, there was a diverse correlation between lifestyle ($p=0.004$, $r=-0.34$) and educational achievement ($p=0.001$, $r=-0.24$) with mental health but there was a direct linear correlation between lifestyle and educational achievement. **Conclusion:** Regarding the role of lifestyle and mental health and to ensure the efficiency and dynamism of the people in the education and prevention of academic failure recommended that be scheduled by improve methods of lifestyle to promote educational status and activate counseling centers and guidance on psychological issues the mental health.

Keywords: lifestyle; mental health; educational achievement; students

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Introduction

Lifestyle is the regular and ordinary daily activities which people have accepted as a fact in such a manner that these activities affect their health. An individual takes action and carries out activities which promote and improve his/ her health and prevents diseases through selecting a lifestyle.^{1, 2} Lifestyle is in fact considered one of the important factors which determine the wellbeing or illness of an individual and the application of positive behavioral patterns affects the improvement of an individual's wellbeing.³ The beginning of adulthood is one of the important periods regarding the formation of behaviors which

improve health and carrying them out and its effect on the following periods of life.⁴ One of the vital periods is the time spent in the university which has been identified as a dynamic transition period. Entering the university is accompanied with special excitements which can affect the students' physical and mental health.⁵ Unfortunately the studies show that the tendency of this age group towards risk behaviors such as lack of physical activities, unhealthy sexual behaviors, smoking, drinking, and using tobacco, irregular meals, and unhealthy eating habits is increasing.⁶ On the other hand, with regard to the significant increase in the population of university

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students in the last few years and their social status as the educated social class, them choosing any type of lifestyle not only affects their personal lives but it can affect the behaviors and lifestyles of other social classes as a role model.⁷ Paying attention to the psychological health of students has a special place in examining the lifestyle of students and improving it among them.⁸ Psychological health means the ability to form a harmonic relationship with others, to change and correct social and personal environment, to resolve conflicts and personal tendencies rationally, to constantly adapt with situations and try to realize a balance between internal conflicts and the requirements of the changing environment.⁹ In its broadest meaning, welfare and health mean phenomena which are interesting to all people, social groups, and human societies. The experts of the World Health Organization have defined psychological health as the ability to form a harmonic relationship with others, to change and modify social and personal environments and to resolve personal tendencies and conflicts rationally, fairly, and appropriately and they hold the belief that psychological health is not just not having a psychological disorder but having the ability to react to different types of life experiences in a flexible and meaningful manner.¹⁰ Factors such as lack of social support, the students not being familiar with the university atmosphere at the beginning, being separated and far away from their families, not being interested in their majors, not getting along with other individuals in dormitories, and lack of sufficient welfare and economic facilities are some of the conditions in the university period which can cause psychological challenges and problems. They affect the students' personal lives as well as their social status, their education, and their career.¹¹ Psychological problems of students first reveal themselves as poor performance, fatigue, feeling guilty, having no appetite, tendency to commit suicide, and not being able to concentrate and change the mental and cognitive functions they also interfere with the individual's biological rhythms such as sleeping and eating.¹² Moreover, academic achievement means having a good grasp of information and theoretical knowledge of a specific field,¹³ and it is closely related to the psychological health of students and dependent on it in such a manner that psychological health guarantees the academic achievement of students.¹⁴ A lot of researchers hold the belief that helping students gain and improve their positive self-concept, creating a positive view of life, mutual relationships in the family, and gaining

and improving social skills are amongst the most important factors which can decrease and resolve the issues related to the educational period of students and eventually guarantee their academic achievement through improving their psychological health.¹⁵ The importance of this progress is clear to everyone, students' progress in their education and gain a status which has utilized their maximum external and internal abilities to achieve great educational goals and they gain the conditions required for a successful social life through that.¹⁶ University students can moreover guarantee the progress and development of the society as the intellectual and efficient social class which builds the future of a nation.¹⁷ The duty of the educational institutions is therefore preparing the conditions for the students to succeed with regard to the factors which affect academic achievement.¹⁸ The present research has therefore aimed at examining lifestyle and its relationship with psychological health and academic achievement of nursing students.

Materials and Methods

Study design and sample

This study is a descriptive and regression study which has been carried out to examine the lifestyle and its relationship with the psychological health and academic achievements of the students of Borujen's nursing faculty. The research was conducted in Borujen nursing faculty and the population included the students of nursing bachelor's degree program, between Februarys to July 2015. The entire population (118 individuals) was selected as the research sample. Survey sampling method was used in the present study to select the sample. And so the students who were in the faculty and dormitories were selected for this research in case they had the specifications of the under-study units and in case they were willing to do so. The researcher visited the faculty and the dormitories during the week days.

Data collection

After introducing himself/ herself, the researcher explained the required issues on the manner in which the questionnaire had to be filled out and the manner in which the letters of consent were received from the students. The researcher then distributed the questionnaires. The students were also assured that their information was confidential also before entering the study. All participants signed a written consent form. In addition, they could exit the study at any time they wanted. The sampling process took approximately four months. It is worth mentioning that the researcher was present at the intended locations in order to answer the probable questions of

the participants and makes sure that all the answers were the same in all locations.

Preparation and validation of questionnaire

The present research used two types of questionnaires, Walker's healthpromoting lifestyle questionnaire and the General Health Questionnaire-28 (GHQ-28) general health questionnaire. The demographic specifications were added to the first section of the latter questionnaire. The demographic properties included questions related to age, gender, living place, the household aspect, the general status of health, marital status, religion, and etc. the semester's Grade Point Average (GPA) of the students were also obtained from the education section of the faculty in order to examine their educational status and they were considered as the achievement index. The measurement instruments used in Walker's lifestyle questionnaire include physical activity, eating habits, and security habits which made up 52 questions and the internal consistency reliability of this questionnaire was obtained through Cronbach's alpha in Mohammadi Zeydi's research and it was equal to 82%. The content validity of the questionnaire was also approved by specialists. There were 8 questions and 9 questions in this instrument of the type and duration of physical activities and diet and there were 3 questions related to the security behaviors of the students such as smoking cigarettes, using a seat belt, and brushing their teeth. All the questions were posed based on a four-point Likert scale (never, sometimes, often, and always). Two other questions were also added to the height and weight of students in order to calculate their body mass. The Body Mass Index(BMI) global standard was used to classify students based on their body mass. A BMI<18.5 was categorized as thin, a BMI of 18.5-24.9 was considered normal, a BMI of 25- 29.2 was classified as overweight, and a BMI of 30-34.9 was considered fat.¹³ 1 to 4 points was given to the physical activity and diet sections and two out of three questions on security behaviors based on the Likert scale. Unlike the rest of the questions, the question which was related to smoking in the security behavior section was scored in this manner: the people who never smoked got 4 points and the people who sometimes smoked, often smoked, or always smoked got 3, 2, and 1 respectively. The total scores of the three sections of the lifestyle questionnaire were classified in three groups namely, weak, intermediate, and good. The three subsections of physical activity, diet, and security behaviors was scored in this manner: the lifestyle score between 33 and 43 was weak,

the score between 44 and 54 was intermediate, and the score between 55 and 65 was considered as good. Regarding the physical activity variable, a score between 5 and 8 was weak, a score between 16 and 22 was intermediate, and a score between 23 and 29 was good. Regarding the diet variable, a score of 14- 20 was considered weak, a score of 21-26 was intermediate, and a score of 27-33 was good. When scoring the security behavior variable, a score of 4-6 was considered weak, a score between 7 and 9 was considered intermediate, and a score of 10-12 was considered good.¹⁹ Standard (GHQ) was designed by Goldberg and contains 28 questions and 4 subscales of physical symptoms, anxiety and insomnia symptoms, social functioning disorder, and depression symptoms. Each of the subsections of this questionnaire includes 7 questions. This questionnaire is scored based on Likert scale. Each of the questions has a four- degree scores (0, 1, 2, and 3) and one score are considered for the entire questionnaire. Through selecting "never", "normal", "more than normal", "much more than normal", the participants specify the degree to which they agree with each statement. Regarding the manner of scoring, each individual's score may vary between 0 and 84. 23 is the cut score of this questionnaire. A 23 or a higher score indicates that the participant is not psychologically healthy. Noorbala et al. conducted a study which aimed at assessing the reliability and validity of this questionnaire in Tehran and they came to the conclusion that this questionnaire can be successfully used in epidemiological studies of psychological disorders. The reliability of this scale was reported to be between 0.67 and 0.76 and the test-retest reliability was 0.85. Najafi calculated the reliability of this questionnaire through test-retest and the result was 0.89.²⁰ Academic achievement: the criterion for academic achievement is the total GPA of the subjects taken, in such a manner that the semester GPA of all students were divided into four quarters: the first quarter refers to the GPAs lower than 14 and a student obtaining a GPA of this class is considered as an unsuccessful student, the second and third quarters (GPAs of 14-16.57) were intermediate, and the fourth quarter which included GPAs higher than 16.57 represented the successful students. The GPAs of the under- study students were extracted through examining their online report cards and their educational files obtained through their student number. The GPAs were then typed into the personal information part of the questionnaire based on the codes which were previously assigned to the

questionnaires. Cronbach's Alpha was used to assess the reliability of the questionnaire in the present research. To that end, the researcher first visited the research location and distributed the questionnaires among 30 students.

Data analysis

After collecting the questionnaires, SPSS version 21 (IBM Corp., Armonk, NY, USA) was used and the Cronbach's Alpha of Walker's lifestyle-questionnaire instrument was reported to be equal to 0.90 and that of the GHQ-28 general health questionnaire was reported to be 0.88. The specifications of the research units were: the students had to be studying in the university for at least one and a half years at the time the research was conducted, and they had to be clear of any known mental-physical diseases. The criteria for discarding the participants included: the student being a guest in this branch and the students who were among the conditional students that term due to a specific reason (such as one of their relatives passing away, or suffering from a disease, and etc.) and the students who had taken a leave that semester. Descriptive statistics methods were used to design the tables. Pearson's correlation coefficient, independent t-test, one-way analysis of variance, and Chi square statistical tests have been used to achieve the goals of the research.

Ethical considerations

The written informed consent was gained from all participants and they were assured that their provided information will remain confidential. The present study was approved by Ethical Committee Medical Sciences University of Shahrekord (ethics code: 93-9-20).

Results

The results of this research indicate that most of the students (61.01%) have an average lifestyle. Also 46.61% were weak in physical activity, 54.23% were intermediate in the field of diet, and 52.54% were good in the field of security behaviors (table 1). When examining the mental health, 17.19% of the students were complaining about their physical health, 37.28% were depressed, 3.74% had signs of anxiety, and 21.18% of the units were malfunctioning socially (table 2). With regard to the obtained results, most of the students (55.55%) had a GPA less than 14 and (47.16%) had a GPA of 14-16 and both group had a weak lifestyle. While 40.81% had an average lifestyle with GPAs of 16-18 and students with 18 and above GPAs (71.42%) had a good lifestyle (table 3). Taking into consideration the Pearson correlation coefficient, there is a significant and reverse relationship between

lifestyle ($r=-0.34$ and $p=0.004$) and psychological health and between academic achievement ($r=-0.24$ and $p=0.001$) and psychological health which means lifestyle and academic achievement improves mental disorders decrease but there is a positive correlation and a significant relationship between lifestyle and academic achievement ($p=0.03$ and $r=0.628$). Based on the findings of the present research, most of the students (59.3%) were in 21- 24 age ranges. 56.8% of the under- study units were female and only 43.2% were male. 90.7% of the under- study units were single, and 9.3% were married. Most of the participants (83.9%) had bachelor's degree and 73.7% were studying nursing. 1.7% of the under- study units were employees (who were hired in governmental positions from the very beginning and had started studying in the following years) and 82.2% of them were only students while 16.1% were not only studying but were working at student jobs as well. 3.4% had a positive opinion on the psychological background. Most of the participants (44.9%) had a GPA of 14- 16 and the minority (5.9%) had a GPA of 18 or higher. 88.1% were living in dormitories. And most of the students (97.5%) were Shiites.

Table 1: Frequency distribution and lifestyle, physical activity, diet, and security habits of the students

	Lifestyle	Physical activity	Diet	Security habits
Weak	27 (22.88%)	55 (46.61%)	31 (26.27%)	8 (6.77%)
Average	72 (61.01%)	51 (43.22%)	64 (54.23%)	48 (40.67%)
Good	19 (16.10%)	12 (10.16%)	23 (19.49%)	62 (52.54%)

Table 2: Students' mental health frequency distribution

Indexes	N %	Without a disorder	With a disorder
Complain about physical status	Frequency Percentage	97 82.20	21 17.79
Depression	Frequency Percentage	74 62.71	44 37.28
Anxiety	Frequency Percentage	77 65.25	41 34.74
Disorderly social performance	Frequency Percentage	93 78.81	25 21.18

Table 3: Frequency distribution of the lifestyle and GPA of the students

Lifestyle		Weak	Intermediate	Good
Grade Point Average GPA	<14	5 (55.55%)	3 (33.33%)	1 (11.11%)
	14-16	25 (47.16%)	20 (37.73%)	8 (15.09%)
	16-18	15 (30.61%)	20 (40.81%)	14 (28.57%)
	≥ 18	0	2 (2.57%)	5 (71.42%)

Discussion

The results of the present research indicate that most of the students (61.01%) have an average lifestyle. Although the belief in lifestyle and health is formed in the initial years of life, lifestyle behaviors which are experienced during the university period can have tremendous effects on students' health.²¹ Nylsaz et al. descriptive study was also conducted to examine the behaviors which improved health and lifestyle of the students of Dezful universities. This study showed that more than half of the students had an average lifestyle.²² Walsh also approved this finding in a study they carried out to examine the lifestyle and its effect on the psychological health of people.³ The lifestyle of 46.61% of the students was weak regarding the issue of physical activity which was consistent with the findings of Varela-Mato et al. study.¹ While Dodd et al. assessed the lifestyle of students as good and explained that since the university students are a homogeneous and accessible social class, they are relatively healthy when it comes to physical activity.⁶ Based on the findings, 54.23% of the university students were average in the field of diet and only 6.77% of the under-study participants were assessed as weak in the field of security habits. These findings of the researcher were also true in Kia et al. study.²³ Despite all that, Mitsutake et al. found opposite results and the diet of students was weak in their lifestyle and they were average in the field of security habits.²⁴ Cockerham defines a healthy lifestyle as: lifestyle is a set of health behavior patterns based on the choices of people and in accordance with their life status.²⁵ 37.28% of the students were diagnosed with depression in this study and 34.74% of them showed signs of anxiety which is consistent with Qi et al. research.¹¹ The results of Parvizrad et al. and Namdar et al. and Lepp's studies however indicated that the

noticeable disorders were related to the aspect of social performance.^{18, 26, 27} University students' lives cause different types of stress due to their special conditions. As they enter university and separate from their families, most students feel lonely and become antisocial.²⁸ Based on the findings, the GPA of most of the students (44.9%) is between 14 and 16 and the minority (5.9%) have a GPA of 18 and above which is consistent with the findings of Harris et al. study and Wigfield et al. research.^{13, 16} There was also a significant relationship between lifestyle and academic achievement ($p=0.03$ and $r=0.628$) in such a manner that most of the students with a GPA of 14 or 14-16 had a weak lifestyle and the lifestyle improved as the GPAs increased. Webber believes that the health oriented lifestyles depend on options and opportunities which can be accessed by people such as academic achievement. Students who undergo academic failure has a tendency towards negative behavior and so they harm themselves or the society.²⁹ The results of Lopes et al. study on this matter are also consistent with the results of the present research.¹⁴ In their research, Wald et al. came to the conclusion that the students who are committed to healthy habits such as proper physical activity, consuming fruits and vegetables, and getting enough sleep, in their lifestyle had higher GPAs.³⁰ With regard to the results of the Pearson correlation there is a significant relationship and a negative correlation between lifestyle ($r=-0.34$ and $p=0.004$) and academic achievement ($r=-0.24$ and $p=0.001$). In their research which was conducted to examine the relationship between psychological health and academic achievement, Pullmann et al. approve this finding.¹⁵ The results of Eisenberg et al. study indicated that there is a relationship between the simultaneous occurrence of anxiety and depression and a low GPA.⁹ Diseth states that encountering different sorts of personality styles in the professional and dormitory atmospheres, insufficient welfare facilities, economic shortcomings, and decreased support resources and supervision of families makes university students vulnerable to mental and social harms which affects having goals and being satisfied with academic achievement. Based on public belief and as an index of physical health, lifestyle means a mutual relationship between a healthy mind and a healthy body which can predict mental health.¹⁷ In his research based on examining lifestyle and its relationship with people's mental health, Walsh reported that the lifestyle of individuals can have a significant effect on their cognitive

performance and that a change in lifestyle offers outstanding treatment benefits.³ The researches have indicated that lifestyles are related to the mental health and physical health of people³¹⁻³². It is worth mentioning that since the sample size was small in the present research, the results are could not be generalized to all university students which is one of the limitations of this study it is therefore necessary to conduct another research with a larger sample in different universities. Since academic achievement and mental health are affected by many background factors and many of these factors were unknown in this research, it is advisable to design research in order to identify more of these factors. Also students who avoid participating in studies due to dullness, fatigue, depression, anxiety, and being antisocial must be studied through adopting a set of strategies so action could be taken in order to correct their conditions as a risk group in addition to getting better results.

Conclusion

With regard to the effect of lifestyle on mental health and guaranteeing the efficiency and dynamism of individuals in their educational period and also preventing academic failure it is advisable to plan the educational progress through methods of improving lifestyle. Also with regard to the relationship between mental health and academic achievement and the role of these university students in meeting the needs of

the society as well as improving and protecting it, it is necessary to create proper educational conditions, identify the skills and interest of university students when they are choosing their major, and to activate the counseling centers in the field of academic and mental issues for students and improve and secure their mental health and consequently that of the society.

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Conflict of Interest

None declared.

Authors's contribution:

Data gathering and idea owner of this study: Heidari M, Borujeni MB, Borujeni MG, Rezaei P

Study design: Heidari M, Borujeni MB, Borujeni MG, Rezaei P

Data gathering: Borujeni MB

Writing and submitting manuscript: Heidari M, Borujeni MB

Editing and approval of final draft: Heidari M, Borujeni MB, Borujeni MG, Rezaei P

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